

## CLAIMS

What is claimed is:

- 1 1. A method for managing materialized views, the method comprising the steps of:  
2 a database system receiving a request to generate a materialized view that contains  
3 objects of an object class;  
4 in response to receiving said request, said database management system creating said  
5 materialized view; and  
6 said database management system performing operations on said objects as instances of  
7 said object class.
  
- 1 2. The method of claim 1, wherein the step of creating said materialized view  
2 includes the step of creating an object materialized view, wherein said  
3 object materialized view is associated with an object class and contains  
4 instances of said object class that correspond to rows of said object  
5 materialized view.
  
- 1 3. The method of claim 1, wherein the step of creating said materialized view includes  
2 creating an object-relational view that includes at least one object column.
  
- 1 4. The method of claim 1, wherein the method further includes the step of receiving another  
2 request from a user requesting performance of said operations on said objects as instances  
3 of said object class.
  
- 1 5. The method of claim 1, wherein the step of said database management system performing  
2 operations includes performing an operation on said objects by invoking a routine  
3 associated with said object class.
  
- 1 6. The method of claim 1, further including the step of said database management system  
2 generating refresh code that refreshes said materialized view.

1 7. The method of claim 1, further including the step of generating refresh code that may be  
2 executed to fully refresh said materialized view.

1 8. The method of claim 1, further including the step of generating refresh code that  
2 refreshes said materialized view based on modifications to one or more base tables of  
3 said materialized views.

1 9. The method of claim 8, wherein:  
2 said materialized view includes an object column associated with said object class,  
3 the object class is associated with attributes;  
4 the step of creating said materialized view includes creating a container table that  
5 includes corresponding columns that correspond to said attributes and that hold  
6 values for said attributes; and  
7 the step of generating refresh code includes the step of generating refresh code that  
8 references said corresponding columns but not as said attributes of said object  
9 class.

10 10. The method of claim 1, wherein said materialized view includes an object column that  
11 has a plurality of nested tables that contain nested table objects.

1 11. The method of claim 10, wherein the step of creating said materialized view includes the  
2 steps of:  
3 creating a container table for said materialized view; and  
4 creating another table that holds attributes of nested table objects of said plurality of  
5 nested tables.

1 12. The method of claim 1, wherein:  
2 said materialized view is associated with one or more base tables;

3 a base table of said one or more base tables includes a base column typed as an object  
4 reference; and  
5 wherein the step of creating said materialized view includes creating a particular column  
6 that:  
7 corresponds to said base column, and  
8 is typed as an object reference.

1 13. The method of claim 12, wherein:  
2 a first scope of said base column is a first set of tables; and  
3 the particular column has a second scope that is different than said first scope.

4 14. The method of claim 13, wherein the second scope is another materialized view based on  
5 said first set of tables.

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